

IBPS PO Pre 2025 Memory Based Paper Based on 23rd August 1st Shift

Directions (1-3): Read the given instructions carefully and answer the related questions:

A certain number of persons are sitting in a row facing north.

Three persons sit between A and B. C sits second to the right of B. D sits fifth to the left of C. Two persons sit between D and E. The number of persons sit between D and C is one more than the number of persons sit between D and F. No one sits to the left of F. The position of A with respect to F is same as the position of C with respect to G. As many persons sit to the left of F as to the right of C.

Q1. How many persons sit between E and G?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) More than four

Q2. Who among the following sits third to the left of G?

- (a) B
- (b) E
- (c) A
- (d) C
- (e) D

Q3. How many persons sit in the row?

- (a) 9
- (b) 13
- (c) 12
- (d) None of the given options
- (e) 10

Q4. How many meaningful words can be formed from the 3rd, 5th, 8th and 12th letter from the left end of the word **FERMENTATION**. If no word is formed, then mark the answer as @ and if more than three words are formed, then mark the answer as #, else choose the correct answer from given options?

- (a) 1
- (b) 2
- (c) 3
- (d) #
- (e) @

Q5. How many pair of digits can be formed in the number **73915243**, which have same number of digits between them as in the number series (both forward and backward direction)?

- (a) None
- (b) Two
- (c) Three
- (d) More than three
- (e) One

Directions (6-8): Study the information carefully and answer the questions given below.

Eight persons A, B, C, D, E, F, G and H are members of a three-generation family, with no single parent. G is the daughter-in-law of D. B has no daughter. H is the aunt of A. G is the sister-in-law of C. C is married member of the family. B is the grandfather of A. C and A are of opposite gender. E is the brother of F and has no child.

Q6. How is G related to E?

- (a) Wife
- (b) Sister
- (c) Sister-in-law
- (d) Mother
- (e) Can't be determined

Q7. How many male members are there in the family?

- (a) Two
- (b) Three
- (c) Five
- (d) Four
- (e) None of these

Q8. Who among the following is the mother of E?

- (a) H
- (b) A
- (c) D
- (d) C
- (e) Can't be determined

Directions (9-11): In these questions, the relationship between different elements is shown in the statements. The statements are followed by two conclusions. Study the conclusions based on the given statements and select the appropriate answer:

- (a) If only conclusion I is true
- (b) If only conclusion II is true
- (c) If either conclusion I or II is true
- (d) If both conclusions I and II are true
- (e) If neither conclusion I nor II is true

Q9. Statements: $O > S = G \leq R \geq K$; $L \leq R = P$; $T < J = P$

Conclusions:

- I. $S < L$
- II. $J \geq G$

Q10. Statements: $Q \leq M > D > E = T$; $F = G \geq H < C < T \geq A$

Conclusions:

- I. $A \leq M$
- II. $F > Q$

Q11. Statements: $Z = X < Y > O \leq W$, $P \geq Q = R < S > W$

Conclusions:

I. $X > R$

II. $Z \leq Q$

Directions (12-16): Study the following information carefully and answer the questions given below:

Six persons – A, B, C, D, E and F – were born in different months – April, July, and September – on two different dates, i.e., 9th and 26th of the same year. Each person likes a different colour – Red, Blue, Pink, Green, White, and Yellow. All the information is not necessarily used in the same order

Two persons were born between F and the person who likes red. D was born immediately before F on an odd date and in the month having even number of days. The one who likes pink was born two persons before C. E was born immediately before C on an even date. Two persons were born between the ones who like pink and blue. A was born before the one who likes green and two persons after the one who likes yellow. E doesn't like yellow.

Q12. Who among the following was born on 9th July?

- (a) C
- (b) The one who likes green color
- (c) F
- (d) The one who likes pink color
- (e) D

Q13. Which among the following pairs is correct?

- (a) B – Green, 26th September
- (b) C – Red, 26th July
- (c) F – White, 26th April
- (d) E – Green, 26th April
- (e) D – Yellow, 9th September

Q14. How many persons were born between F and the one who likes blue color?

- (a) Four
- (b) Two
- (c) One
- (d) None
- (e) Three

Q15. Who among the following likes white color?

- (a) The one who was born four persons before B
- (b) C
- (c) A
- (d) The one who was born on 26th September
- (e) None of these

Q16. Which of the following statements is/are incorrect?

- I. C was born before D.
 - II. No person was born between F and the one who likes pink color.
 - III. E was born in the month having odd number of days and likes green color.
- (a) Both II and III
 - (b) Only I
 - (c) Both I and III
 - (d) Only III
 - (e) All I, II and III

Directions (17-21): Read the given instructions carefully and answer the related questions:

Six persons – A, B, C, D, E and F – bought six different types of cars – Sedan, SUV, Hatchback, Limousine, Coupe, and Convertible – one after the other, but not necessarily in the same order.

The one who bought Sedan purchased it three persons before F. As many persons bought car before F as after the one who purchased Hatchback. Two persons bought cars between the ones who purchased Hatchback and SUV. E bought the car before the one who purchased SUV but immediately before A. Coupe was bought two persons after A but immediately bought before convertible. Convertible was bought before B but after D.

Q17. Who among the following bought the Limousine?

- (a) E
- (b) B
- (c) C
- (d) D
- (e) A

Q18. Who bought the car three persons after that person who bought the car immediately before D?

- (a) C
- (b) B
- (c) F
- (d) A
- (e) None of these

Q19. If A is related to Hatchback and in the same way E is related to limousine then, C is related to which type of car?

- (a) Coupe
- (b) Convertible
- (c) SUV
- (d) Sedan
- (e) None of these

Q20. The number of cars bought between E and the one who purchased Hatchback is one more than the number of cars bought after the one who purchased _____.

- (a) Convertible
- (b) SUV
- (c) Coupe
- (d) Limousine
- (e) Sedan

Q21. Sedan was purchased by who among the following person?

- (a) A
- (b) D
- (c) E
- (d) F
- (e) C

Directions (22-24): In this question below, some statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer-

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or II follows
- (d) If neither conclusion I nor II follows
- (e) If both conclusions I and II follow

Q22. Statements:

Only a few club is court

Some court is allow

No allow is revenue

Conclusions:

I. Some club being allow is a possibility

II. Some court are not revenue.

Q23. Statements:

Only a few Edition is investors

All investors are verdict.

No verdict is affect

Conclusions:

I. No edition is affect

II. All investors being affect is a possibility

Q24. Statements:

All skipper is win
Some win is player
Only a few player is hear

Conclusions:

- I. All skipper being hear is a possibility
- II. No win is hear

Q25. Find the odd one out?

- (a) JLMP
- (b) ACDG
- (c) EGHK
- (d) LNOR
- (e) QSTU

Directions (26-30): Read the information carefully and answer the questions given below:

Seven persons A, B, C, D, E, F and G were born on seven different years i.e., 1947, 1959, 1964, 1973, 1978, 1988 and 2001 on the same month and same date. (Base year is considered as 2025 for age calculation). The sum of the ages of C and F is equal to the age of D. G's age is divisible by 6. The total age of A and G is a prime number. A is just older than F. The sum of the age of B and A is divisible by 5.

Q26. Who among the following was born on 1973?

- (a) G
- (b) B
- (c) E
- (d) A
- (e) C

Q27. How many persons were born between A and B?

- (a) Two
- (b) More than four
- (c) Four
- (d) One
- (e) Three

Q28. What is the difference between the age of C and D?

- (a) 12 years
- (b) 10 years
- (c) 24 years
- (d) 37 years
- (e) 38 years

Q29. Who among the following is the oldest person?

- (a) E
- (b) B
- (c) G
- (d) D
- (e) None of these

Q30. What is the age of G?

- (a) 37 years
- (b) 24 years
- (c) 47 years
- (d) 52 years
- (e) 66 years

Directions (31-35): Read the information carefully and answer the questions given below:

Fourteen persons are sitting in two parallel rows containing seven persons each. In row 1 - A, B, C, D, E, F and G are seated and all of them are facing north. While P, Q, R, S, T, U and V are sitting in row-2 and facing south direction but not necessarily in the same order. Persons of row 1 face the persons of row 2. Q sits two places away from the one who faces E. E is the only immediate neighbour of D. U faces the one who sits third to the right of C. The number of persons sit to the right of Q is same as the number of persons sit to the left of G. B sits second to the left of G. One person sits between R and V and both of them do not sit at the extreme ends. S sits right of T but not sit at the extreme ends. A faces the one who sits second to the right of R.

Q31. Who among the following faces R?

- (a) G
- (b) D
- (c) B
- (d) C
- (e) A

Q32. Which of the following statement(s) is/are true?

- (a) Two persons sit between G and A
- (b) U faces E
- (c) V sits left of R
- (d) C doesn't sit at extreme ends
- (e) All are true

Q33. Four of the following five are alike in a certain way and hence form a group. Who among the following does not belong to that group?

- (a) T
- (b) F
- (c) S
- (d) U
- (e) G

Q34. How many persons sit to the left of the one who faces S?

- (a) Two
- (b) More than four
- (c) Four
- (d) One
- (e) Three

Q35. Who among the following sits second to the right of the one who faces F?

- (a) V
- (b) T
- (c) R
- (d) Q
- (e) None of these

Directions (36-44): Read the following passage and answer the given questions.

The concept of cloud kitchens, also known as virtual or ghost kitchens, has become one of the fastest-growing trends in the food industry. Unlike traditional restaurants, cloud kitchens operate without a dine-in facility, focusing entirely on online orders and delivery services. This model has gained momentum due to changing consumer habits, technological integration, and the growing demand for convenience.

One of the most significant economic advantages of cloud kitchens is cost efficiency. By eliminating the expenses of prime-location rentals, heavy décor, and customer service staff, businesses can focus resources on food quality, marketing, and delivery logistics. For many entrepreneurs, launching a restaurant earlier seemed like an **elusive** dream, but cloud kitchens have made it possible with lower investment and quicker setup.

The global growth of cloud kitchens is impressive. In Britain, the industry witnessed a dramatic transformation in 2023, expanding nearly threefold compared to previous years. Much of this growth has been driven by the popularity of food delivery apps where customers need to **tap** once on their screens to get a meal delivered. Similarly, the United States has set an ambitious target, aiming to generate around \$27 billion from cloud kitchen operations between 2027 and 2032. Such projections underline the crucial role cloud kitchens will play in the food economy of the future.

Beyond profits, cloud kitchens contribute positively to the overall economy by creating jobs in cooking, packaging, logistics, and technology support. They also encourage collaborations with delivery platforms and boost allied sectors like packaging manufacturing and food supply chains. Much of this work is quietly **done** _____, yet it strengthens multiple layers of the economy.

However, this rapid growth has raised concerns. While governments have issued regulations concerning hygiene, licensing, and safety standards, many restaurants operating as cloud kitchens fail to comply strictly with these rules. The lack of regular inspections and the rush to meet demand often lead to corners being cut, raising questions about consumer safety and long-term sustainability.

In conclusion, cloud kitchens represent a transformative shift in the food and service industry. They are cost-effective, scalable, and job-generating, making them vital for economic growth. Yet, their true potential will only be realized when strict adherence to regulations ensures that quality and safety are never compromised.

Q36. What is the underlying reason cloud kitchens have enabled more entrepreneurs to enter the food business?

- (a) The emergence of global food trends requiring innovative business models.
- (b) The increase in food delivery app usage that encourages mass entry.
- (c) The substantial decrease in start-up and operational costs associated with running a food business.
- (d) The ability to access a wider consumer base without geographical limitations.
- (e) The availability of shared kitchen infrastructure and government subsidies in urban areas.

Q37. Which of the following statements is/are CORRECT according to the passage?

- (I) Technological tools and mobile apps have played a significant role in the adoption of cloud kitchens.
 - (II) Britain experienced a stagnant cloud kitchen market until 2023.
 - (III) Many cloud kitchens fail to comply with food safety rules due to operational urgency.
- (a) Only (I)
 - (b) Both (I) and (III)
 - (c) Only (II)
 - (d) Both (II) and (III)
 - (e) All (I), (II), and (III)

Q38. Which of the following situations best explains the concern highlighted in the passage?

- (a) A cloud kitchen receives a five-star rating for speedy delivery despite complaints about poor food quality.
- (b) A traditional restaurant installs a robot chef to improve efficiency and reduce labor costs.
- (c) A local food vendor switches to cloud kitchen services and increases profits.
- (d) A delivery app offers discounts to promote lesser-known cloud kitchens.
- (e) A food safety authority mandates regular inspections for dine-in restaurants only.

Q39. What does the passage say about cloud kitchens in Britain?

- (a) They were banned in 2023 due to safety issues.
- (b) They grew three times larger in 2023 compared to earlier years.
- (c) They replaced all traditional restaurants by 2023.
- (d) They focused only on packaging and delivery.
- (e) They were introduced for the first time in 2023.

Q40. Which of the following statements is/are factually INCORRECT based on the passage?

- (I) The global rise of cloud kitchens has had little to no impact on auxiliary sectors such as food supply chains and packaging.
 - (II) In the United States, cloud kitchens are projected to contribute nearly \$27 billion to the economy by the year 2027 alone.
 - (III) One of the key reasons behind the proliferation of cloud kitchens is the substantial reduction in fixed operational costs.
- (a) Only (I)
 - (b) Both (I) and (II)
 - (c) Only (III)
 - (d) Both (I) and (III)
 - (e) All (I), (II), and (III)

Q41. Choose the most suitable phrase for the given blank.

- (a) in broad daylight
- (b) without permission
- (c) on live television
- (d) behind the scenes
- (e) under pressure

Q42. Choose the word that is grammatically and contextually most suitable to replace "elusive" as used in the passage:

- (a) Obvious
- (b) Achievable
- (c) Unattainable
- (d) Defining
- (e) Difficult

Q43. What is the **closest meaning** of the word "done" as used in the passage?

- (a) Completed
- (b) Final
- (c) Avoided
- (d) Attained
- (e) Repeated

Q44. What is the most appropriate meaning of the word "tap" as used in this context?

- (a) Strike
- (b) Click
- (c) Extract
- (d) Control
- (e) Attach

Directions (45-49): The following question contains a sentence with a blank. Choose the most appropriate word or phrase from the given options that can most suitably replace the blank in the sentence.

Q45. The dentist had to _____ the decayed tooth to prevent further infection.

- (a) modify
- (b) excuse
- (c) recruit
- (d) amplify
- (e) remove

Q46. The new technology promises to _____ the way we perform everyday tasks.

- (a) impede
- (b) acclaim
- (c) stagnate
- (d) deteriorate
- (e) augment

Q47. The athlete's rigorous training and unwavering determination _____ to their remarkable success.

- (a) contributed
- (b) detracted
- (c) underestimated
- (d) isolated
- (e) impeded

Q48. The new regulations aim to _____ fair competition among all market participants.

- (a) infringe
- (b) enforce
- (c) relinquish
- (d) constrain
- (e) fragment

Q49. The exam rules must be _____ followed to ensure fairness for all students.

- (a) scarcely
- (b) preciously
- (c) strictly
- (d) hardly
- (e) mostly

Directions (50-54): Rearrange the following sentences to form a meaningful paragraph.

- (A) Many people now prefer taking extended vacations to unwind and reconnect with themselves.
- (B) Travel has increasingly become a way not just to see new places but to momentarily escape the pressures of daily routines.
- (C) In today's fast-paced world, hectic schedules and constant digital connectivity often leave individuals drained.
- (D) Meeting new people, exploring unfamiliar cultures, and disconnecting from work helps rejuvenate the mind.
- (E) This shift in travel behavior reflects a growing awareness about mental well-being and the need for intentional breaks.

Q50. Which of the following is the FIRST sentence after rearrangement?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q51. Which of the following is the SECOND sentence after rearrangement?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q52. Which of the following is the THIRD sentence after rearrangement?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q53. Which of the following is the FOURTH sentence after rearrangement?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q54. Which of the following is the FIFTH sentence after rearrangement?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Directions (55-58): In the question below, a sentence is given with four words highlighted. These four words are may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other.

Q55. Be careful (A) not to microwave (B) the hot plate (C) when you take the food out of the catch (D).

- (a) A-B
- (b) B-C & A-D
- (c) A-B & C-D
- (d) B-D
- (e) No interchange required

Q56. India is system (A) digitising its healthcare rapidly (B), and artificial intelligence (AI) offers a huge transformation (C) to super-charge this opportunity (D).

- (a) A-B and C-D
- (b) B-C
- (c) A-C and B-D
- (d) B-D
- (e) No interchange required

Q57. Astronomical (A) temperatures (B) are usually estimated from spectroscopic (C) measurements (D).

- (a) A-B
- (b) B-C
- (c) A-C
- (d) B-D
- (e) No interchange required

Q58. Growing (A) children in involving (B) and nurturing a few plants at home can open (C) up the magical (D) world of nature and science to them

- (a) A-B
- (b) B-C
- (c) A-C and B-D
- (d) B-D
- (e) No interchange required

Q59. Match the parts of sentences given in Column I and Column II to form meaningful and grammatically correct complete sentences. Choose the option that contains all the correct combinations.

COLUMN I	COLUMN II
A. The new cybersecurity policy mandates organizations	D. to support the growing number of EV users nationwide
B. Electric vehicle manufacturers are expanding their charging networks	E. to perform complex surgeries with minimal invasion
C. Rising sea levels and erratic weather patterns	F. that are currently beyond the scope of classical computers

- (a) None of these
- (b) A-F
- (c) B-D
- (d) A-E, B-F
- (e) A-F, B-D, C-E

Q60. A phrase has been given in the question and used in the sentences below. Identify the statements where the phrase has been used in a contextually and grammatically correct manner.
DARK HORSE

- (I) Nobody expected her to win the competition, but she turned out to be the **dark horse** of the event.
 - (II) The painter was a **dark horse**, known by few but admired once his work was revealed.
 - (III) The farmer bought a **dark horse** and a white cow from the village market.
- (a) Only (I)
 - (b) Only (II)
 - (c) Both (I) and (II)
 - (d) All of these
 - (e) Both (II) and (III)

Directions (61-65): The sentence is divided into four segments: (A), (B), (C), and (D). Identify the segment that contains a grammatical error. If the sentence is both grammatically and contextually correct, select “No error” as the correct answer.

Q61. The Prime Minister promised (A)/ to improving infrastructure (B)/ in rural districts by allocating (C)/ additional funds in the next budget. (D)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q62. She enjoys hiking in the mountains, (A)/ swimming in the lake, (B)/ and to explore ancient ruins (C)/ during her travels abroad. (D)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q63. The orchestra have (A)/ started rehearsing (B)/ for the upcoming international music festival (C)/ scheduled in Vienna next month. (D)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q64. A unexpected spike in volcano activity (A)/ has forced authorities to evacuate (B)/ nearby villages as a safety (C)/ measure to prevent casualties. (D)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q65. The ambassador (A)/ said the reports have (B)/ being examined carefully by his staff (C)/ before making any comment. (D)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Directions (66-69): In each question two equations number (I) and (II) are given. You should solve both the equations and mark appropriate answer.

- (a) If $x=y$ or no relation can be established
- (b) If $x>y$
- (c) If $x<y$
- (d) If $x \geq y$
- (e) If $x \leq y$

Q66. I. $x^2 - 10x + 24 = 0$

II. $5y^2 - 16y + 12 = 0$

Q67. I. $2x^2 - 9x + 10 = 0$

II. $y^2 - 12y + 35 = 0$

Q68. I. $6x^2 - 7x + 2 = 0$

II. $10y^2 - 11y + 3 = 0$

Q69. I. $2x^2 + 19x + 42 = 0$

II. $2y^2 + 7y + 5 = 0$

Directions (70-73): What approximate value come in the place of 'x' in the following questions.

Q70. $\frac{779.23}{13} + 4.98 + 23 = x\% \text{ of } 60.03$

- (a) 187
- (b) 121
- (c) 169
- (d) 147
- (e) 177

Q71. $39.98\% \text{ of } 249.99 + \sqrt{196.04} = x^2 + 55.93$

- (a) 6
- (b) 9
- (c) 5
- (d) 8
- (e) 4

Q72. $20.99^2 - 24.97\% \text{ of } 220.02 - ? = 131.13$

- (a) 225
- (b) 125
- (c) 255
- (d) 145
- (e) 290

Q73. $24.21^2 + 12.16 = ? \times (49.99\% \text{ of } 55.98)$

- (a) 25
- (b) 29
- (c) 21
- (d) 17
- (e) 33

Directions (74-79): The table given below shows the total number of red and blue balls in five different bags (A, B, C, D & E). it also shows the difference between red and blue balls and percentage of red balls with respect to total balls.

Total bags	Difference between red and blue balls	Percentage of red ball with respect to total balls
A	60	62.5%
B	198	66.5%
C	188	70%
D	76	60%
E	330	72%

Q74. The number of Red ball in A and E together is what percentage of number of blue balls in A and E together.

- (a) 230
- (b) 220
- (c) 240
- (d) 280
- (e) 260

Q75. The sum of number of blue balls in B and number of red balls in C are how many less than number of red balls in E.

- (a) 55
- (b) 53
- (c) 50
- (d) 58
- (e) 56

Q76. Find the ratio of number of red balls in A and E together to number of blue balls in A.

- (a) 23:10
- (b) 23:11
- (c) 23:3
- (d) 18:19
- (e) 21:22

Q77. Find the average number of red balls in B, D and E.

- (a) 355
- (b) 353
- (c) 350
- (d) 389
- (e) 386

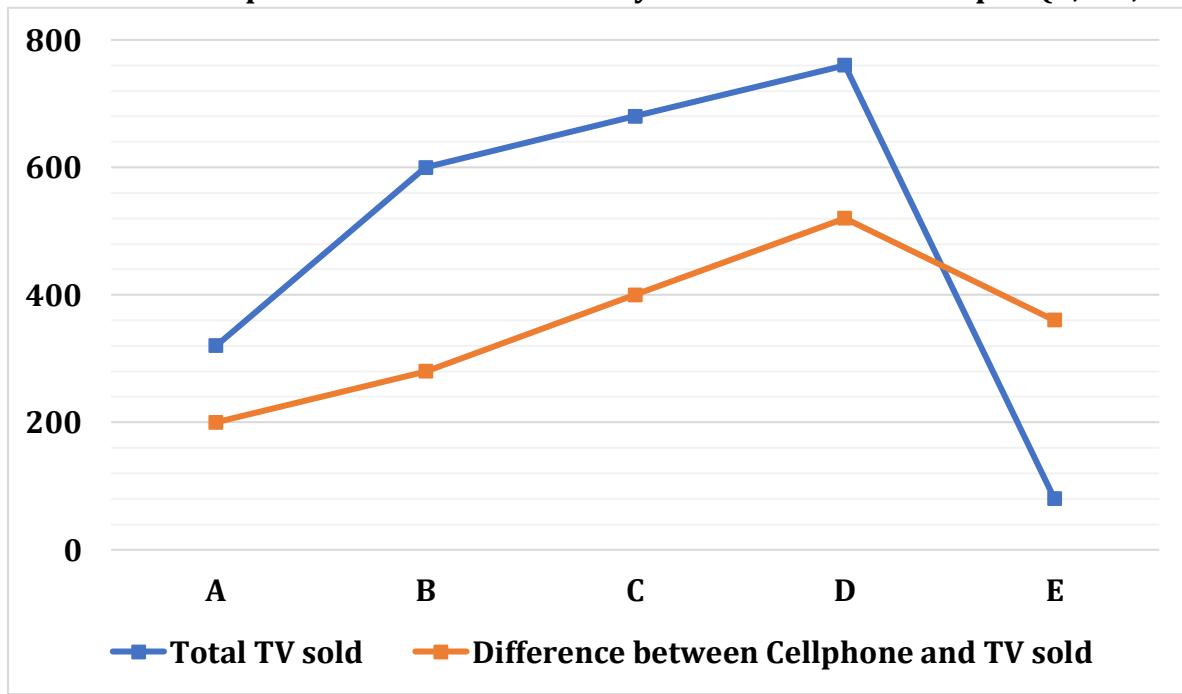
Q78. The number of balls in bag F is 25% more than red balls in E and the ratio of red balls in A and blue balls in F is 2:1. Find the red balls in F.

- (a) 685
- (b) 680
- (c) 630
- (d) 620
- (e) 600

Q79. If 20% of total balls in A taken out and put into bag C and number of red balls in C become 400. Find the blue balls taken out from bag A.

- (a) 40
- (b) 50
- (c) 20
- (d) 30
- (e) 55

Directions (80-85): The line graph given below shows the total number of TV sold and difference between cell phone and TV sold by five different shops (A, B, C, D and E).



Note – Total cell phones sold by all the shops are more than the total TV sold.

Items = cell phone + TV

Q80. Total item sold by E is what percentage more/less than total TV sold by D.

- (a) 31.57%
- (b) 30%
- (c) 36%
- (d) 31%
- (e) 31.25%

Q81. Total items sold by Shop F is 20% more than that by shop C and the ratio of total TV sold and cell phone sold by shop F is 7:15. Find the number of TV sold by F.

- (a) 685
- (b) 620
- (c) 672
- (d) 670
- (e) 666

Q82. Find the difference between sum of cell phone sold by C and E together and total items sold by A.

- (a) 685
- (b) 620
- (c) 600
- (d) 680
- (e) 660

Q83. Find the ratio of TV sold by D to cell phones sold by B.

- (a) 19:10
- (b) 19:11
- (c) 10:19
- (d) 18:19
- (e) 19:22

Q84. If 12.5% of TV sold by D are defective and total items sold by D that are defective is 280. Find the defective cell phones sold by D.

- (a) 185
- (b) 120
- (c) 100
- (d) 180
- (e) 186

Q85. Average number of cell phone sold by B, C and E.

- (a) 900
- (b) 720
- (c) 400
- (d) 800
- (e) 720

Directions (86-90): Read the information and answer the following question given below.

The information is about the staffs (lab assistant and professor) in three colleges.

For A – total lab assistant and total professor is 82.

For B – total lab assistant is 4 more than total lab assistant in C.

For C – total lab assistant is 6 less than total professor

Note – total professor in A is 44 less than total lab assistant in B.

Total staffs in C is 24 more than that in A and total professor in all the college is 102.

Q86. Find the total staff in B.

- (a) 90
- (b) 80
- (c) 60
- (d) 65
- (e) 70

Q87. Find the ratio of total professors in B to total lab assistant in A.

- (a) 6:1
- (b) 6:7
- (c) 6:5
- (d) 1:2
- (e) 3:1

Q88. The ratio of total staff is in college D to lab assistant in A is 3:4. Total lab assistant in D is 20 less than that in C. Find the professor in D.

- (a) 24
- (b) 25
- (c) 20
- (d) 30
- (e) 50

Q89. Total professor in A is what percentage of total staff in B.

- (a) 9.09%
- (b) 11.11%
- (c) 12.5%
- (d) 30%
- (e) 25%

Q90. Find the average of total lab assistant in A and C.

- (a) 61
- (b) 62
- (c) 63
- (d) 64
- (e) 65

Q91. The boat goes downstream X kilometer in two hours. The same distance covered by boat in upstream in three hours. If the speed of stream is of 3km/h, then find 2X?

- (a) 12
- (b) 18
- (c) 18
- (d) 24
- (e) 30

Q92. A invest Rs. 6400 and B invest Rs. 7200 in a business. After 4 months, A withdrawal 30% of the initial investment and C join with 40% of initial investment of B. After one year, the total profit is 90000. Find the profit of A and C(in Rs.) approximate?

- (a) 48486
- (b) 42486
- (c) 44494
- (d) 57640
- (e) 77865

Q93. A jar contains milk and water. The ratio of milk and water is $8 : x$. When 5 liters of milk and 30 liters of water is added into the jar, then the ratio of milk to water becomes $1 : 1$. Find x .

- (a) 6
- (b) 2
- (c) 5
- (d) 3
- (e) Can't Determined

Q94. A rectangular park having twice length of the breadth. A half pathway width of 4 cm having area of is 352 m^2 . Find the length of the rectangular park (in meters)?

- (a) 92
- (b) 180
- (c) 184
- (d) 176
- (e) 88

Q95. The speed of a train is 72 km/h and it crosses a platform in 25 seconds. If the train crosses an athlete whose speed is 18 km/h running in same direction of train in 10 seconds, then find the length of platform (in meters)?

- (a) 150
- (b) 400
- (c) 450
- (d) 350
- (e) 500

Q96. The selling price of an article is Rs. 624 and a shopkeeper got a loss of 22%. If he marks up same article at 30% above the cost price and get a profit of Rs. 84, then find the discount percentage allowed by the shopkeeper?

- (a) 7.5%
- (b) 5%
- (c) 20%
- (d) 10%
- (e) 15%

Q97. Gopi invested Rs. X in scheme A at rate of 15% p.a. for two years. The amount received by Gopi from scheme A is reinvest in scheme B at the rate of 10% p.a. for two years on compound interest. If the difference between interest received from A and B is 32.4, then find X?

- (a) 1500 Rs.
- (b) 1200 Rs.
- (c) 1000 Rs.
- (d) 1800 Rs.
- (e) 800 Rs.

Q98. 7 men, 15 women can complete a piece of work in 15 days and the same work is completed by 18 men and 20 women in eight days. If X men and 20 women can complete the work in 10 days. Then find X.

- (a) 18
- (b) 16
- (c) 24
- (d) 12
- (e) 20

Q99. A set of four consecutive multiple of four, and its average is 30. If another series which is five consecutive even number series which lowest number is equal to second lowest multiple of these four consecutive multiples of four. Find the highest number of five consecutive even number series?

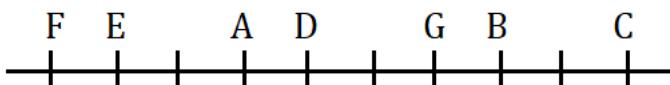
- (a) 36
- (b) 34
- (c) 32
- (d) 30
- (e) 38

Q100. The sum of the present ages of P & Q is 64 years and R & Q is 56 years, respectively. The ratio of the age of P after 12 years to the age of Q six years ago is 4:X. If the age of R after 12 years is 32 years, then find X.

- (a) 1
- (b) 5
- (c) 3
- (d) 7
- (e) 9

Solutions

Solutions (1-3):



S1. Ans.(d)

S2. Ans.(c)

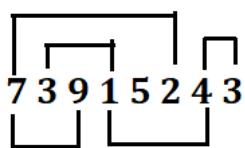
S3. Ans.(e)

S4. Ans.(b)

Sol. EARN, NEAR

S5. Ans.(d)

Sol.



Solutions (6-8):

$$\begin{array}{c} D (-) \equiv B (+) \\ | \\ E (+) - F (+) \equiv G (-) - H (-) \equiv C (+) \\ | \\ A (-) \end{array}$$

S6. Ans.(c)

S7. Ans.(d)

S8. Ans.(c)

S9. Ans.(b)

Sol. I. $S < L$ (False)

II. $J \geq G$ (True)

S10. Ans.(e)

Sol. I. $A \leq M$ (False)

II. $F > Q$ (False)

S11. Ans.(c)

Sol. I. $X > R$ (False)

II. $Z \leq Q$ (False)

Both the conclusions are individually false but satisfy the either-or case as:

$Z=X$ and $Q=R$

Solutions (12-16):

Months	Dates	Persons - Colours
April	9	D - Yellow
	26	F - White
July	9	A - Pink
	26	E - Green
September	9	C - Red
	26	B - Blue

S12. Ans.(d)

S13. Ans.(c)

S14. Ans.(e)

S15. Ans.(a)

S16. Ans.(b)

Solutions (17-21):

Persons	Cars
E	Sedan
A	Limousine
D	Hatchback
F	Coupe
C	Convertible
B	SUV

S17. Ans.(e)

S18. Ans.(a)

S19. Ans.(c)

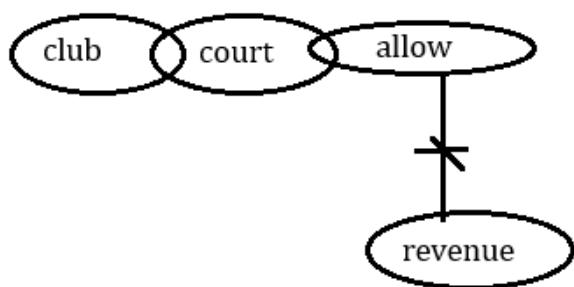
Sol. C is related to SUV. Logic here is - the car was bought immediately after the person given.

S20. Ans.(b)

S21. Ans.(c)

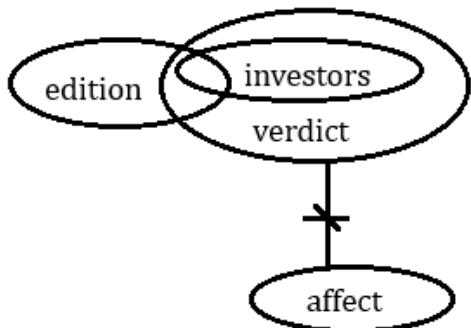
S22. Ans.(e)

Sol.



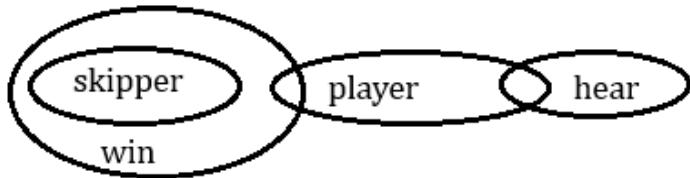
S23. Ans.(d)

Sol.



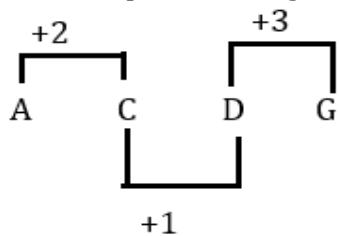
S24. Ans.(a)

Sol.



S25. Ans.(e)

Sol. Except QSTU, Logic is here:



Solutions (26-30):

Year	Ages	Persons
1947	78	B
1959	66	G
1964	61	D
1973	52	E
1978	47	A
1988	37	F
2001	24	C

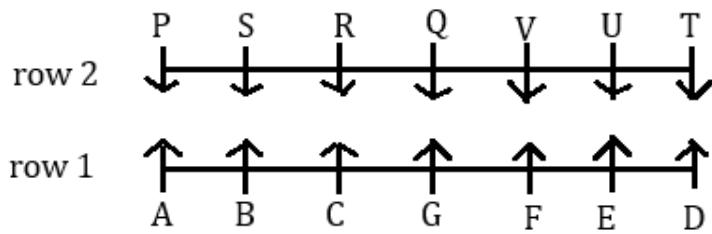
S26. Ans.(c)

S27. Ans.(e)

S28. Ans.(d)

S29. Ans.(b)

S30. Ans.(e)

Solutions (31-35):

S31. Ans.(d)

S32. Ans.(e)

S33. Ans.(a)

S34. Ans.(d)

S35. Ans.(c)

S36. Ans.(c)

Sol. The passage notes: “*cloud kitchens have made it possible with lower investment and quicker setup.*” and “*By eliminating the expenses of prime-location rentals, heavy décor, and customer service staff...*”

Thus, the underlying reason is the **decrease in start-up and operational costs**, not just app usage or subsidies.

Correct answer: (c)

Detailed Analysis of Options:

- **(a) The emergence of global food trends requiring innovative business models.**
While global food trends are influencing business models, the passage clearly highlights *cost efficiency* as the main reason entrepreneurs are able to start restaurants more easily. Hence, this is not the underlying reason.
- **(b) The increase in food delivery app usage that encourages mass entry.**
Food delivery apps boost consumer demand, but they are not the *primary enabler* for entrepreneurs to start food businesses. They support the growth of cloud kitchens but do not reduce the barrier to entry.
- **(c) The substantial decrease in start-up and operational costs associated with running a food business.**
This is directly supported by the passage: “*By eliminating the expenses of prime-location rentals, heavy décor, and customer service staff, businesses can focus resources on food quality, marketing, and delivery logistics.*”
- Thus, lower costs make it possible for more entrepreneurs to launch their ventures.
- **(d) The ability to access a wider consumer base without geographical limitations.**
While true in some contexts, the passage emphasizes *cost reduction* as the main enabler for entrepreneurs rather than just customer reach.
- **(e) The availability of shared kitchen infrastructure and government subsidies in urban areas.**
The passage does not mention government subsidies or shared infrastructure as the key factor, so this is not correct.

S37. Ans.(b)

Sol. Both (I) and (III)

Statement-wise Analysis:

- **(I) Technological tools and mobile apps have played a significant role in the adoption of cloud kitchens.**
- Correct. The passage mentions: "*Much of this growth has been driven by the popularity of food delivery apps where customers need to tap once on their screens to get a meal delivered.*"
- This clearly highlights the role of technology and apps.
- **(II) Britain experienced a stagnant cloud kitchen market until 2023.**
- Incorrect. The passage states: "*In Britain, the industry witnessed a dramatic transformation in 2023, expanding nearly threefold compared to previous years.*"
- The word "stagnant" is not mentioned. The market grew rapidly in 2023 but not necessarily from stagnation.
- **(III) Many cloud kitchens fail to comply with food safety rules due to operational urgency.**
- Correct. The passage states: "*The lack of regular inspections and the rush to meet demand often lead to corners being cut, raising questions about consumer safety.*"
- This supports the statement.

S38. Ans.(a)

Sol. The final paragraph emphasizes the tension between **rapid growth and compromised food safety or quality**:

"Yet, their true potential will only be realized when strict adherence to regulations ensures that quality and safety are never compromised."

Option (a) exemplifies that—business success despite *compromised food standards*.

Correct answer: **(a)**

Option-wise Analysis:

- **(a) A cloud kitchen receives a five-star rating for speedy delivery despite complaints about poor food quality.**
- Correct. The passage points out that in the rush to meet demand, cloud kitchens often compromise on hygiene and quality standards. This situation directly reflects the concern raised.
- **(b) A traditional restaurant installs a robot chef to improve efficiency and reduce labor costs.**
- Incorrect. This shows innovation in operations but does not connect with the issue of safety or regulation.
- **(c) A local food vendor switches to cloud kitchen services and increases profits.**
- Incorrect. This represents economic benefit, not the highlighted concern about compromised quality and safety.
- **(d) A delivery app offers discounts to promote lesser-known cloud kitchens.**
- Incorrect. This emphasizes promotional strategies and growth, not consumer safety or rule compliance.
- **(e) A food safety authority mandates regular inspections for dine-in restaurants only.**
- Incorrect. While it hints at regulatory imbalance, the passage specifically stresses that cloud kitchens themselves often fail to comply because of operational urgency.

S39. Ans.(b)

Sol. From the passage: "*In Britain, the industry witnessed a dramatic transformation in 2023, expanding nearly threefold...*"

Correct answer: **(b)**

Option-wise Analysis:

- **(a) They were banned in 2023 due to safety issues.**
Incorrect. The passage does mention safety concerns, but nowhere does it say cloud kitchens were banned in Britain.
- **(b) They grew three times larger in 2023 compared to earlier years.**
Correct. The passage clearly states: "*In Britain, the industry witnessed a dramatic transformation in 2023, expanding nearly threefold compared to previous years.*" This matches the option exactly.
- **(c) They replaced all traditional restaurants by 2023.**
Incorrect. The passage does not claim that cloud kitchens completely replaced traditional restaurants.
- **(d) They focused only on packaging and delivery.**
Incorrect. Cloud kitchens focus on online orders and delivery, but the passage does not state that Britain's cloud kitchens focused *only* on packaging and delivery.
- **(e) They were introduced for the first time in 2023.**
Incorrect. The passage never suggests 2023 was the starting year; instead, it highlights major growth in that year.

S40. Ans.(b)

Sol. Analysis:

Statement (I): "*The global rise of cloud kitchens has had little to no impact on auxiliary sectors such as food supply chains and packaging.*"

→ **Incorrect.** The passage clearly states: "*They also encourage collaborations with delivery platforms and boost allied sectors like packaging manufacturing and food supply chains.*"

Hence, Statement I contradicts the passage.

Statement (II): "*In the United States, cloud kitchens are projected to contribute nearly \$27 billion to the economy by the year 2027 alone.*"

→ **Incorrect.** The passage says: "*The United States has set an ambitious target, aiming to generate around \$27 billion from cloud kitchen operations between 2027 and 2032.*"

This means the amount is projected over a span of 5 years, not just by 2027. So the statement is factually wrong.

Statement (III): "*One of the key reasons behind the proliferation of cloud kitchens is the substantial reduction in fixed operational costs.*"

→ **Correct.** The passage says: "*One of the most significant economic advantages of cloud kitchens is cost efficiency. By eliminating the expenses of prime-location rentals, heavy décor, and customer service staff...*"

This validates Statement III.

Thus, only Statements I and II are **incorrect**.

Correct answer: **(b) Both (I) and (II)**

S41. Ans.(d)

Sol. The context of the sentence implies that the work is **important but not visible to the public**, yet still contributes significantly to the economy. The phrase “**behind the scenes**” perfectly captures this idea — referring to **actions that occur out of public view but are essential**.

Now, let's check each option:

- **(a) in broad daylight**
Incorrect. This phrase means something done openly and visibly, which contradicts the idea of work being *quietly* done.
- **(b) without permission**
Incorrect. The passage does not suggest that the work is unauthorized; rather, it stresses quiet contributions.
- **(c) on live television**
Incorrect. This would mean publicly broadcasted, which again contradicts the “quietly done” context.
- **(d) behind the scenes**
Correct. This phrase means work being done quietly, without much public attention, yet still crucial. It perfectly fits the context.
- **(e) under pressure**
Incorrect. Though urgency is mentioned elsewhere, here the emphasis is on quiet, unnoticed contributions, not stress.

S42. Ans.(c)

Sol. “Elusive” = difficult to catch, achieve, or define.

Meanings:

Option-wise Analysis:

- **(a) Obvious**
 - *English meaning:* Easily seen, clear, or self-evident.
 - *Hindi meaning:* स्पष्ट, साफ़
 - Incorrect, because the dream of launching a restaurant was not "clear" or "evident"; it was difficult.
- **(b) Achievable**
 - *English meaning:* Possible to do or attain.
 - *Hindi meaning:* प्राप्त करने योग्य, हासिल किया जा सकने वाला
 - Incorrect, because the passage conveys the opposite idea—that the dream was *not achievable earlier*.
- **(c) Unattainable**
 - *English meaning:* Impossible to achieve or reach.
 - *Hindi meaning:* अप्राप्य, न हासिल होने वाला
 - Correct, as it directly matches the sense of “elusive dream” being out of reach.
- **(d) Defining**
 - *English meaning:* Critically important, decisive, or setting a clear meaning.
 - *Hindi meaning:* निर्णायिक, परिभाषित करने वाला
 - Incorrect, because the passage talks about possibility, not definition.

-
- **(e) Difficult**
 - *English meaning:* Hard to do or deal with.
 - *Hindi meaning:* कठिन, मुश्किल
 - Partially correct, but not as strong as “unattainable.” “Elusive” goes beyond just “difficult” — it implies nearly impossible.

Correct answer: **(c)**

S43. Ans.(a)

Sol. In this context, “done behind the scenes” refers to work that is **carried out or completed quietly**, without public attention.

Option-wise Meanings and Analysis:

- **(a) Completed**
 - *English meaning:* Finished, carried out successfully.
 - *Hindi meaning:* पूरा किया हुआ, संपन्न
 - Correct, as “done” here refers to work being *completed* in the background.
- **(b) Final**
 - *English meaning:* Last stage, ultimate, not to be changed.
 - *Hindi meaning:* अंतिम, अंतिम रूप से तय
 - Incorrect, since the passage is not about something being the *last stage* but about work being carried out.
- **(c) Avoided**
 - *English meaning:* Kept away from, prevented.
 - *Hindi meaning:* टाला गया, बचा लिया गया
 - Incorrect, because “done” means work performed, not avoided.
- **(d) Attained**
 - *English meaning:* Reached or achieved a goal.
 - *Hindi meaning:* प्राप्त किया हुआ, हासिल किया
 - Incorrect, as “done” here refers to action completed, not something achieved.
- **(e) Repeated**
 - *English meaning:* Done again, performed more than once.
 - *Hindi meaning:* दोहराया हुआ, बार-बार किया गया
 - Incorrect, because “done” means carried out once, not repeated.

S44. Ans.(b)

Sol. The correct answer is “Click”.

Option-wise Meanings and Analysis:

- **(a) Strike**
 - *English meaning:* Hit forcefully.
 - *Hindi meaning:* प्रहार करना, मारना
 - Incorrect. “Tap” here does not mean hitting hard, but lightly touching a screen.
- **(b) Click**
 - *English meaning:* Press or select something on a screen with a finger or mouse.
 - *Hindi meaning:* दबाना, क्लिक करना
 - Correct. Fits perfectly with “tap once on their screens” in the context of using apps.

- **(c) Extract**
 - *English meaning:* Remove or take out something.
 - *Hindi meaning:* निकालना, उतारना
 - Incorrect, as the passage does not talk about removing but about screen interaction.
- **(d) Control**
 - *English meaning:* To direct, manage, or regulate something.
 - *Hindi meaning:* नियंत्रित करना, काबू रखना
 - Incorrect, since “tap” does not imply controlling.
- **(e) Attach**
 - *English meaning:* To join or fix something.
 - *Hindi meaning:* जोड़ना, संलग्न करना
 - Incorrect, as this has no relevance to the digital screen action described.

S45. Ans.(e)

Sol. The correct answer is: **(e) remove**

Sentence:

The dentist had to _____ the decayed tooth to prevent further infection.

Context: A *decayed tooth* can cause infection, so the dentist would *take it out (remove)*.

Option Analysis:

(a) modify

- **English:** to change slightly.
- **Hindi:** संशोधित करना
- **Example:** *The teacher modified the lesson plan.*
- **Incorrect** – you cannot “modify” a decayed tooth to stop infection.

(b) excuse

- **English:** to forgive or justify.
- **Hindi:** माफ़ करना
- **Example:** *Please excuse my mistake.*
- **Incorrect** – meaningless in this context.

(c) recruit

- **English:** to hire or enlist.
- **Hindi:** भर्ती करना
- **Example:** *The company will recruit new employees.*
- **Incorrect** – irrelevant to teeth.

(d) amplify

- **English:** to increase or make stronger.
- **Hindi:** बढ़ाना
- **Example:** *The microphone amplified his voice.*
- **Incorrect** – opposite meaning; dentist reduces infection, not amplifies it.

(e) remove

- **English:** to take away, eliminate.
- **Hindi:** निकालना / हटाना
- **Example:** *The surgeon removed the tumor successfully.*
- **Correct** – dentist removes the tooth to prevent infection.

Final Answer: (e) remove

S46. Ans.(e)

Sol. The correct answer is: **(e) augment**

Sentence:

The new technology promises to _____ the way we perform everyday tasks.

Context: *new technology* → should *improve/enhance* daily work, not block or worsen it.

Option Analysis:

(a) impede

- **English:** hinder, obstruct.
- **Hindi:** बाधा डालना
- **Example:** *Heavy traffic impeded our progress.*
- **Incorrect** – opposite meaning; technology is meant to help, not block.

(b) acclaim

- **English:** praise, applaud.
- **Hindi:** प्रशंसा करना
- **Example:** *The film was acclaimed by critics.*
- **Incorrect** – technology doesn't "praise" the way we perform tasks.

(c) stagnate

- **English:** stop developing, remain inactive.
- **Hindi:** ठहर जाना, रुक जाना
- **Example:** *Without innovation, companies stagnate.*
- **Incorrect** – opposite of what technology does.

(d) deteriorate

- **English:** worsen, decline.
- **Hindi:** बिगड़ना
- **Example:** *The patient's health deteriorated rapidly.*
- **Incorrect** – technology doesn't worsen task performance.

(e) augment

- **English:** enhance, improve, increase in effectiveness.
- **Hindi:** बढ़ाना, सुधारना
- **Example:** *AI can augment human abilities in problem-solving.*
- **Correct** – technology promises to **augment** = make tasks easier, better, more efficient.

Final Answer: (e) augment

S47. Ans.(a)

Sol. The correct answer is: **(a) contributed**

Sentence:

The athlete's rigorous training and unwavering determination _____ to their remarkable success.

Context: *training + determination* → these are positive factors that *led to success*.

Option Analysis:

(a) contributed

- **English:** helped to bring about, played a role in.
- **Hindi:** योगदान देना
- **Example:** *Her hard work contributed to the team's victory.*
- **Correct** – perfectly fits: training and determination **contributed to success**.

(b) detracted

- **English:** reduced the value, took away from.
- **Hindi:** घटाना, कम करना
- **Example:** *His rude comment detracted from the speech.*
- **Incorrect** – opposite meaning.

(c) underestimated

- **English:** judged something as less important than it is.
- **Hindi:** कम आंका
- **Example:** *They underestimated the difficulty of the exam.*
- **Incorrect** – doesn't fit with success.

(d) isolated

- **English:** set apart, separated.
- **Hindi:** अलग करना
- **Example:** *The illness isolated him from his friends.*
- **Incorrect** – irrelevant to success.

(e) impeded

- **English:** hindered, obstructed.
- **Hindi:** बाधा डालना
- **Example:** *The rain impeded construction work.*
- **Incorrect** – opposite of what's implied.

Final Answer: (a) contributed

S48. Ans.(b)

Sol. The correct answer is: **(b) enforce**

Sentence:

The new regulations aim to _____ fair competition among all market participants.

Context: Regulations exist to **ensure / enforce** fairness in the market.

Option Analysis:**(a) infringe**

- **English:** to violate, break a rule.
- **Hindi:** उल्लंघन करना
- **Example:** *The policy infringes on people's rights.*
- **Incorrect** – opposite meaning.

(b) enforce

- **English:** to make sure laws or rules are obeyed.
- **Hindi:** लागू करना, अमल कराना
- **Example:** *The police enforce traffic laws.*
- **Correct** – regulations **enforce fair competition.**

(c) relinquish

- **English:** to give up, surrender.
- **Hindi:** छोड़ देना
- **Example:** *He relinquished control of the company.*
- **Incorrect** – unrelated to regulations.

(d) constrain

- **English:** to limit, restrict.
- **Hindi:** बाधित करना
- **Example:** *Lack of funds constrained the project.*
- **Incorrect** – opposite effect, rules don't restrict competition, they promote fairness.

(e) fragment

- **English:** to break into pieces.
- **Hindi:** टुकड़े करना
- **Example:** *The glass fragmented on impact.*
- **Incorrect** – illogical here.

Final Answer: (b) enforce

S49. Ans.(c)

Sol. The correct answer is: **(c) strictly**

Sentence:

The exam rules must be _____ followed to ensure fairness for all students.

Context: Rules → need to be **firmly/strictly** obeyed.

Option Analysis:**(a) scarcely**

- **English:** barely, hardly.
- **Hindi:** मुश्किल से, शायद ही
- **Example:** *He scarcely had time to eat before leaving.*
- **Incorrect** – meaning doesn't fit; rules must be followed strongly, not "barely."

(b) preciously

- **English:** dearly, of great value.
- **Hindi:** बहुमूल्य ढंग से
- **Example:** *She held the necklace preciously.*
- **Incorrect** – doesn't collocate with "rules."

(c) strictly

- **English:** firmly, without exceptions.
- **Hindi:** सख्ती से
- **Example:** *Mobile phones are strictly prohibited in exams.*
- **Correct** – rules are **strictly followed**.

(d) hardly

- **English:** almost not, barely.
- **Hindi:** शायद ही / मुश्किल से
- **Example:** *He could hardly see in the dark.*
- **Incorrect** – wrong meaning in context.

(e) mostly

- **English:** mainly, generally.
- **Hindi:** अधिकतर
- **Example:** *The students are mostly attentive.*
- **Incorrect** – "mostly followed" is weak and imprecise.

Final Answer: (c) strictly

S50. Ans.(c)

Sol. Correct Sequence: C - B - A - D - E

Explanation:

1. **(C)** starts the paragraph logically by establishing the **context**: a hectic, fast-paced modern lifestyle leading to exhaustion.
2. *Key role:* Sets up the **problem or situation**.
3. **(B)** follows by introducing **travel** as a **solution**—an escape from this hectic routine.
4. *Key role:* Introduces **travel** as a theme and its growing significance.
5. **(A)** naturally builds on (B) by explaining how people are now **taking longer vacations** to unwind.
6. *Key role:* Develops the idea of **how** people are choosing to escape.
7. **(D)** continues the thought by detailing **what people do** during these vacations—meeting people, exploring cultures, and recharging.
8. *Key role:* Adds **depth** to the benefits of travel.
9. **(E)** concludes by **generalizing the trend**, noting a broader shift in mindset toward **mental well-being**.
10. *Key role:* Offers a **concluding insight** into the motivation behind the behavior.

S51. Ans.(b)

Sol. Correct Sequence: C - B - A - D - E

Explanation:

1. **(C)** starts the paragraph logically by establishing the **context**: a hectic, fast-paced modern lifestyle leading to exhaustion.
2. *Key role:* Sets up the **problem or situation**.
3. **(B)** follows by introducing **travel** as a **solution**—an escape from this hectic routine.
4. *Key role:* Introduces **travel** as a theme and its growing significance.
5. **(A)** naturally builds on (B) by explaining how people are now **taking longer vacations** to unwind.
6. *Key role:* Develops the idea of **how** people are choosing to escape.
7. **(D)** continues the thought by detailing **what people do** during these vacations—meeting people, exploring cultures, and recharging.
8. *Key role:* Adds **depth** to the benefits of travel.
9. **(E)** concludes by **generalizing the trend**, noting a broader shift in mindset toward **mental well-being**.
10. *Key role:* Offers a **concluding insight** into the motivation behind the behavior.

S52. Ans.(a)

Sol. Correct Sequence: C - B - A - D - E

Explanation:

1. **(C)** starts the paragraph logically by establishing the **context**: a hectic, fast-paced modern lifestyle leading to exhaustion.
2. *Key role:* Sets up the **problem or situation**.
3. **(B)** follows by introducing **travel** as a **solution**—an escape from this hectic routine.
4. *Key role:* Introduces **travel** as a theme and its growing significance.

-
5. **(A)** naturally builds on (B) by explaining how people are now **taking longer vacations** to unwind.
 6. *Key role:* Develops the idea of **how** people are choosing to escape.
 7. **(D)** continues the thought by detailing **what people do** during these vacations—meeting people, exploring cultures, and recharging.
 8. *Key role:* Adds **depth** to the benefits of travel.
 9. **(E)** concludes by **generalizing the trend**, noting a broader shift in mindset toward **mental well-being**.
10. *Key role:* Offers a **concluding insight** into the motivation behind the behavior.

S53. Ans.(d)

Sol. Correct Sequence: C - B - A - D - E

Explanation:

1. **(C)** starts the paragraph logically by establishing the **context**: a hectic, fast-paced modern lifestyle leading to exhaustion.
 2. *Key role:* Sets up the **problem or situation**.
 3. **(B)** follows by introducing **travel** as a **solution**—an escape from this hectic routine.
 4. *Key role:* Introduces **travel** as a theme and its growing significance.
 5. **(A)** naturally builds on (B) by explaining how people are now **taking longer vacations** to unwind.
 6. *Key role:* Develops the idea of **how** people are choosing to escape.
 7. **(D)** continues the thought by detailing **what people do** during these vacations—meeting people, exploring cultures, and recharging.
 8. *Key role:* Adds **depth** to the benefits of travel.
 9. **(E)** concludes by **generalizing the trend**, noting a broader shift in mindset toward **mental well-being**.
10. *Key role:* Offers a **concluding insight** into the motivation behind the behavior.

S54. Ans.(e)

Sol. Correct Sequence: C - B - A - D - E

Explanation:

1. **(C)** starts the paragraph logically by establishing the **context**: a hectic, fast-paced modern lifestyle leading to exhaustion.
 2. *Key role:* Sets up the **problem or situation**.
 3. **(B)** follows by introducing **travel** as a **solution**—an escape from this hectic routine.
 4. *Key role:* Introduces **travel** as a theme and its growing significance.
 5. **(A)** naturally builds on (B) by explaining how people are now **taking longer vacations** to unwind.
 6. *Key role:* Develops the idea of **how** people are choosing to escape.
 7. **(D)** continues the thought by detailing **what people do** during these vacations—meeting people, exploring cultures, and recharging.
 8. *Key role:* Adds **depth** to the benefits of travel.
 9. **(E)** concludes by **generalizing the trend**, noting a broader shift in mindset toward **mental well-being**.
10. *Key role:* Offers a **concluding insight** into the motivation behind the behavior.
-

S55. Ans.(d)

Sol. Original sentence:

Be careful (A) not to microwave (B) the hot plate (C) when you take the food out of the catch (D).

The words **microwave** (B) and **catch** (D) are misplaced.

Corrected sentence after swap:

Be careful (A) not to catch (D) the hot plate (C) when you take the food out of the microwave (B).

Word-by-word meanings & explanation

(A) careful

- **English:** cautious, paying attention to avoid danger.
- **Hindi:** सावधान
- **Example:** *Be careful when crossing the road.*
- **Correct** – fits the warning tone of the sentence.

(B) microwave

- **English:** an oven that cooks food using microwaves.
- **Hindi:** माइक्रोवेव (भोजन पकाने की मशीन)
- **Example:** *She heated the soup in the microwave.*
- **Incorrect in original place** – "microwave the hot plate" is illogical. Correct at the end → *out of the microwave*.

(C) plate

- **English:** flat dish used to serve food.
- **Hindi:** टोपी
- **Example:** *He put the cake on a large plate.*
- **Correct** – "hot plate" makes sense as something to avoid touching directly.

(D) catch

- **English:** to hold, grab, or seize.
- **Hindi:** पकड़ना
- **Example:** *Be careful not to catch the pan when it's hot.*
- **Incorrect in original place** – "out of the catch" is meaningless. Correct when swapped → *not to catch the hot plate*.

Final Corrected Sentence:

Be careful not to catch the hot plate when you take the food out of the microwave.

Final Answer: (d) B-D

S56. Ans.(a)

Sol. Original sentence:

India is system (A) digitising its healthcare rapidly (B), and artificial intelligence (AI) offers a huge transformation (C) to super-charge this opportunity (D).

The correct answer is **(a) A-B and C-D**.

Corrected sentence after swaps:

India is rapidly (B) digitising its healthcare system (A), and artificial intelligence (AI) offers a huge opportunity (D) to super-charge this transformation (C).

Word-by-word meanings & explanation

(A) system

- **English:** an organized set of principles or methods; here → *healthcare system*.
- **Hindi:** प्रणाली, व्यवस्था
- **Example:** *The education system needs reform.*
- **Incorrect in original place** → “India is system digitising” is ungrammatical. Correct after swap: *healthcare system*.

(B) rapidly

- **English:** quickly, with great speed.
- **Hindi:** तेजी से
- **Example:** *Technology is rapidly changing our world.*
- **Incorrect in original place** → “healthcare rapidly” is awkward. Correct at start: *is rapidly digitising.*

(C) transformation

- **English:** major change, improvement.
- **Hindi:** परिवर्तन
- **Example:** *Digital transformation is reshaping industries.*
- **Incorrect in original place** → “offers a huge transformation” is odd when followed by “super-charge this opportunity.” Correct at the end: *super-charge this transformation.*

(D) opportunity

- **English:** a chance, favorable condition.
- **Hindi:** अवसर
- **Example:** *Education gives everyone the opportunity to succeed.*
- **Incorrect in original place** → “super-charge this opportunity” does not fit well. Correct after swap: *offers a huge opportunity.*

Final Corrected Sentence:

India is rapidly digitising its healthcare system, and artificial intelligence (AI) offers a huge opportunity to super-charge this transformation.

Final Answer: (a) A-B and C-D

S57. Ans.(e)

Sol. Original sentence:

Astronomical (A) temperatures (B) are usually estimated from spectroscopic (C) measurements (D). This sentence is already grammatically and contextually correct.

- In astronomy, scientists **estimate the temperatures of stars (astronomical temperatures)** using **spectroscopic measurements** (light spectrum analysis).
- So, no swap is needed.

Word-by-word meanings & explanation

(A) Astronomical

- **English:** relating to astronomy (the study of space, stars, planets). Also means *extremely large*.
- **Hindi:** खगोल संबंधी / बहुत बड़ा
- **Example:** *Astronomical observations help us understand galaxies.*
- **Correct here** – “astronomical temperatures” = temperatures of stars/planets.

(B) Temperatures

- **English:** degree of heat present in an object.
- **Hindi:** तापमान
- **Example:** *The sun's temperature is millions of degrees.*
- **Correct here** – what is being estimated in astronomy.

(C) Spectroscopic

- **English:** relating to the study of spectra (light split into colors/wavelengths).
- **Hindi:** वर्णक्रमीय
- **Example:** *Spectroscopic methods reveal the composition of stars.*
- **Correct here** – modifies measurements.

(D) Measurements

- **English:** the act of determining size, amount, or degree.
- **Hindi:** माप
- **Example:** *Accurate measurements are vital in experiments.*
- **Correct here** – spectroscopic measurements are a real scientific method.

Why Others Are Incorrect in Short

- (a) A-B → “temperatures astronomical” = wrong order.
- (b) B-C → “spectroscopic temperatures” is not the main phrase; temps are derived, not spectroscopic.
- (c) A-C → “spectroscopic temperatures” + “astronomical measurements” breaks scientific meaning.
- (d) B-D → “spectroscopic temperatures” again incorrect usage.

Final Corrected Sentence (unchanged):

Astronomical temperatures are usually estimated from spectroscopic measurements.

Final Answer: (e) No interchange required

558. Ans.(a)

Sol. Original sentence:

Growing (A) children in involving (B) and nurturing a few plants at home can open (C) up the magical (D) world of nature and science to them.

Problem:

- *Growing children* is illogical in this context.
- Correct sense is: *Involving children in growing and nurturing plants.*
- So, we must swap (A) Growing ↔ (B) involving.

Corrected sentence after swap (A-B):

Involving (B) children in growing (A) and nurturing a few plants at home can open (C) up the magical (D) world of nature and science to them.

Word-by-word meanings & explanation

(A) Growing

- **English:** developing, cultivating, increasing in size.
- **Hindi:** उगाना / बढ़ना
- **Example:** *She enjoys growing vegetables in her garden.*
- **Incorrect in original place** – “Growing children” gives the wrong meaning. Correct after swap → “growing plants.”

(B) Involving

- **English:** engaging, including in an activity.
- **Hindi:** शामिल करना
- **Example:** *The teacher is involving students in practical activities.*
- **Incorrect in original place** – “children in involving” is awkward. Correct after swap → “Involving children ...”

(C) Open

- **English:** to make accessible, to introduce.
- **Hindi:** खोलना / परिचय कराना
- **Example:** *Books can open up new worlds for children.*
- **Correct** – “can open up the magical world ...” is perfectly logical.

(D) Magical

- **English:** wonderful, enchanting.
- **Hindi:** जादुई
- **Example:** *The sunset created a magical atmosphere.*
- **Correct** – fits well to describe “the world of nature and science.”

Final Corrected Sentence:

Involving children in growing and nurturing a few plants at home can open up the magical world of nature and science to them.

Final Answer: (a) A-B

S59. Ans.(c)

Sol. The correct combination is B-D.

B-D: Electric vehicle manufacturers are expanding their charging networks to support the growing number of EV users nationwide.

Analysis:

Column Matching

- **A. The new cybersecurity policy mandates organizations**
 - Correct match: **F. that are currently beyond the scope of classical computers?** Doesn't fit logically.
 - Correct match: **E. to perform complex surgeries with minimal invasion?** Not related to cybersecurity.
 - Correct match: **D. to support the growing number of EV users nationwide?** Not connected.
 - So, **A has no correct match here.**
- **B. Electric vehicle manufacturers are expanding their charging networks**
 - Correct match: **D. to support the growing number of EV users nationwide.** Logical and grammatically correct.
- **C. Rising sea levels and erratic weather patterns**
 - Correct match: **E. to perform complex surgeries with minimal invasion?** Doesn't make sense.
 - Correct match: **F. that are currently beyond the scope of classical computers?** Not logical.
 - Correct match: **D. to support the growing number of EV users nationwide?** Not related.
 - So, **C has no correct match.**

S60. Ans.(c)

Sol. Meaning of the Phrase: DARK HORSE

- **English:** A *dark horse* is a person who is not well-known but unexpectedly succeeds or shows remarkable ability.
- **Hindi:** *Dark horse* का अर्थ है — ऐसा व्यक्ति जो बहुत कम जाना जाता है, लेकिन अचानक से सफलता प्राप्त कर लेता है या अपनी असाधारण क्षमता दिखाता है।

Sentence-wise Analysis

(I) Nobody expected her to win the competition, but she turned out to be the dark horse of the event.

- **Analysis:**
- Here, *dark horse* is used correctly because she was unexpected to win, but surprised everyone with her success.
- **Correct**
- **Eg:** *In the elections, the little-known candidate became the dark horse by defeating the favorite.*

(II) The painter was a dark horse, known by few but admired once his work was revealed.

- **Analysis:**
- Correct usage — the painter was not famous earlier (*known by few*), but when his work was shown, people admired him. This fits perfectly with the meaning of *dark horse*.
- **Correct**
- **Eg:** *That writer was a dark horse; nobody knew him until his novel won an award.*

(III) The farmer bought a dark horse and a white cow from the village market.

- **Analysis:**
- This is **incorrect usage** because here *dark horse* is being used in its literal sense (a horse with dark color), not in the idiomatic sense of an *unexpectedly successful or little-known person*. Idioms must be used figuratively, not literally.
- **Incorrect**
- **Eg:** Wrong usage: *He purchased a dark horse from the stable.* (literal color, not idiomatic)

Correct Answer: (c) Both (I) and (II)

Final Note:

- **Dark horse = Hidden talent / Unexpected winner.**
- सही प्रयोग तब है जब किसी व्यक्ति की छिपी हुई क्षमता सामने आती है।
- रंग के लिए "dark horse" कहना मुहावरे का गलत प्रयोग है।

S61. Ans.(b)

Sol. Sentence in Question

The Prime Minister promised (A)/ to improving infrastructure (B)/ in rural districts by allocating (C)/ additional funds in the next budget. (D)

Segment-wise Analysis

(A) The Prime Minister promised

- **Grammar Rule:**
- The verb "*promise*" is a transitive verb that usually takes an infinitive (**to + base verb**) or a clause as its complement.
 - Example: *She promised to help her friend.*
 - Example: *He promised that he would arrive early.*
- **Correct Usage Here:**
- "*The Prime Minister promised*" is grammatically correct because it correctly introduces what was promised.

No error in (A).

(B) to improving infrastructure

- **Grammar Rule:**

- After verbs like *promise, decide, plan, hope, agree*, etc., we use the **infinitive (to + base verb)**, **not** the gerund (-ing form).
- Wrong: *He promised to helping his brother.*
- Correct: *He promised to help his brother.*

- **Error:**

- Here, “*to improving*” is incorrect because “*promised*” requires an infinitive, so it should be “*to improve*.”

Error in (B).

(C) in rural districts by allocating

- **Grammar Rule:**

- Preposition + noun phrase (**in rural districts**) is correct.
- The phrase “*by allocating*” is a participial phrase showing the means or method of fulfilling the promise.
- Example: *He improved the system by investing more funds.*

- **Correct Usage Here:**

- “*in rural districts by allocating*” is grammatically correct.

No error in (C).

(D) additional funds in the next budget

- **Grammar Rule:**

- Noun phrase (*additional funds*) + prepositional phrase (*in the next budget*) is correct.
- Example: *The government will provide extra support in the next fiscal year.*

- **Correct Usage Here:**

- “*additional funds in the next budget*” is grammatically correct.

No error in (D).

Correct Answer: (b) B

Corrected Sentence

The Prime Minister promised to improve infrastructure in rural districts by allocating additional funds in the next budget.

Key Rule Recap

- **Promise + infinitive (to + V1), not gerund (-ing):**

- He promised to helping. (incorrect)
- He promised to help. (correct)

S62. Ans.(c)

Sol. Sentence in Question

She enjoys hiking in the mountains, (A)/ swimming in the lake, (B)/ and to explore ancient ruins (C)/ during her travels abroad. (D)

Segment-wise Analysis

(A) She enjoys hiking in the mountains

- **Grammar Rule:**

- After verbs like *enjoy, dislike, avoid, suggest*, etc., we use the **gerund (-ing form)**, not the infinitive.

- Example: *She enjoys reading novels.*

- **Usage Here:**

- “*enjoys hiking in the mountains*” follows the correct rule.

Correct → (A)

(B) swimming in the lake

- **Grammar Rule:**

- This is parallel to the previous phrase ("hiking"), and it also uses the gerund form correctly.

- Example: *He enjoys hiking, swimming, and cycling.*

- **Usage Here:**

- "swimming in the lake" is consistent and correct.

Correct → (B)

(C) and to explore ancient ruins

- **Grammar Rule:**

- When listing activities in parallel structure, **all items must be in the same grammatical form.**

- Here, the first two are gerunds (*hiking, swimming*), so the third must also be a gerund (*exploring*), not an infinitive (*to explore*).

- Incorrect: *She enjoys hiking, swimming, and to explore.*

- Correct: *She enjoys hiking, swimming, and exploring.*

Incorrect → (C)

(D) during her travels abroad

- **Grammar Rule:**

- Prepositional phrase ("during her travels abroad") correctly modifies the whole action.
 - Example: *He made many friends during his travels abroad.*

- **Usage Here:**

- This is grammatically and contextually correct.

Correct → (D)

Correct Answer: (c) C

Corrected Sentence

She enjoys hiking in the mountains, swimming in the lake, and exploring ancient ruins during her travels abroad.

Key Rule Recap

- **Parallelism in lists:**

- All items in a series must be in the same grammatical form.

- Example: *He likes running, jumping, and climbing.* (all gerunds)

S63. Ans.(a)

Sol.

Sentence in Question

The orchestra have (A)/ started rehearsing (B)/ for the upcoming international music festival (C)/ scheduled in Vienna next month. (D)

Segment-wise Analysis

(A) The orchestra have

- **Grammar Rule:**

- Collective nouns (e.g., *orchestra, committee, team, audience*) are **singular** when the group is seen as a single unit, so they take a singular verb.

- Incorrect: *The orchestra have started rehearsal.*

- Correct: *The orchestra has started rehearsal.*

- **Error Here:**

- "orchestra have" is incorrect. It should be "orchestra has."

Incorrect → (A)

(B) started rehearsing

- **Grammar Rule:**
- Present perfect tense (*has/have + past participle*) is correct, and the verb “rehearse” naturally takes the gerund “rehearsing” in this context.
 - Example: *She has started working.*
- **Usage Here:**
- “started rehearsing” is grammatically correct.

Correct → (B)

(C) for the upcoming international music festival

- **Grammar Rule:**
- Preposition + noun phrase is used correctly. The phrase is clear and grammatically sound.
 - Example: *She prepared for the annual event.*

Correct → (C)

(D) scheduled in Vienna next month

- **Grammar Rule:**
- Reduced relative clause is correct here.
 - Full form: *which is scheduled in Vienna next month*
 - Reduced form: *scheduled in Vienna next month*

Correct → (D)

Correct Answer: (a) A

Corrected Sentence

The orchestra has started rehearsing for the upcoming international music festival scheduled in Vienna next month.

Key Rule Recap

- **Collective nouns → singular verb** when the group acts as one unit.
 - Correct: *The team is winning.*
 - Incorrect: *The team are winning.* (unless emphasizing individuals separately, which is rare in exam usage).

S64. Ans.(a)

Sol. Sentence in Question

A unexpected spike in volcano activity (A)/ has forced authorities to evacuate (B)/ nearby villages as a safety (C)/ measure to prevent casualties. (D)

Segment-wise Analysis

(A) A unexpected spike in volcano activity

- **Grammar Rule:**
- The article “a” is used before words beginning with a **consonant sound**, while “an” is used before words beginning with a **vowel sound**.
 - Incorrect: *a apple*
 - Correct: *an apple*
- **Error Here:**
- “unexpected” begins with a **vowel sound (A)**, so the correct form is “**an unexpected.**”

Incorrect → (A)

(B) has forced authorities to evacuate

- **Grammar Rule:**
- Present perfect tense (*has + past participle*) is correct, and “to evacuate” correctly follows “forced.”
 - Example: *The storm has forced people to leave.*

Correct → (B)

(C) nearby villages as a safety

- **Grammar Rule:**
- “as a safety measure” is the correct collocation.
- “safety” here functions as an adjective modifying “measure.”

Correct → (C)

(D) measure to prevent casualties

- **Grammar Rule:**
- Noun phrase (*measure*) + infinitive phrase (*to prevent casualties*) is correct.

Correct → (D)

Correct Answer: (a) A

Corrected Sentence

An unexpected spike in volcano activity has forced authorities to evacuate nearby villages as a safety measure to prevent casualties.

Key Rule Recap

- **Articles and vowel sounds:**
 - Use **a** before consonant sounds → *a book, a university* (“u” here sounds like /ju:/)
 - Use **an** before vowel sounds → *an apple, an hour, an unexpected event*

S65. Ans.(c)

Sol. Sentence in Question

The ambassador (A)/ said the reports have (B)/ being examined carefully by his staff (C)/ before making any comment. (D)

Segment-wise Analysis

(A) The ambassador

- **Grammar Rule:**
- Subject of the sentence is clear and correct. No article error here because *ambassador* is a singular countable noun referring to a specific person.
 - Example: *The ambassador met the press.*

Correct → (A)

(B) said the reports have

- **Grammar Rule:**
- “said” introduces reported speech.
- The structure “said + (that) + clause” is correct.
 - Example: *He said the documents have been checked.*

Correct → (B)

(C) being examined carefully by his staff

- **Grammar Rule:**
- After *have*, we must use the **past participle (been)**, not the present participle (*being*).
 - Incorrect: *The reports have being checked.*
 - Correct: *The reports have been checked.*
- **Error Here:**
- “being” should be replaced with “**been**.”

Incorrect → (C)

(D) before making any comment

- **Grammar Rule:**
- “before + gerund” is correct, as gerunds often follow prepositions.
 - Example: *Think carefully before answering.*

Correct → (D)

Correct Answer: (c) C

Corrected Sentence

The ambassador said the reports have been examined carefully by his staff before making any comment.

Key Rule Recap

- **Perfect tenses:**

- Structure: *have/has + past participle (V3)*
- Wrong: *have being*
- Correct: *have been*

S66. Ans.(b)

Sol.

I. $x^2 - 6x - 4x + 24 = 0$

$x(x-6) - 4(x-6) = 0$

$(x-4)(x-6) = 0$

$x = 4 \text{ & } 6$

II. $5y^2 - 10y - 6y + 12 = 0$

$5y(y-2) - 6(y-2) = 0$

$(5y-6)(y-2) = 0$

$y = 6/5 \text{ & } 2$

$y = 1.2 \text{ & } 2$

x	y	Relation
4	1.2	$x > y$
4	2	$x > y$
6	1.2	$x > y$
6	2	$x > y$

So, $x > y$

S67. Ans.(c)

Sol.

I. $2x^2 - 4x - 5x + 10 = 0$

$2x(x-2) - 5(x-2) = 0$

$(2x-5)(x-2) = 0$

$x = 5/2 \text{ & } 2$

$x = 2.5 \text{ & } 2$

II. $y^2 - 7y - 5y + 35 = 0$

$y(y-7) - 5(y-7) = 0$

$(y-7)(y-5) = 0$

$y = 7 \text{ & } 5$

x	y	Relation
2.5	7	$y > x$
2.5	5	$y > x$
2	7	$y > x$
2	5	$y > x$

So, $x < y$

S68. Ans.(a)**Sol.**

$$\text{I. } 6x^2 - 4x - 3x + 2 = 0$$

$$2x(3x-2) - 1(3x-2) = 0$$

$$(2x-1)(3x-2) = 0$$

$$x = \frac{1}{2} \text{ & } \frac{2}{3}$$

$$x = 0.5 \text{ & } 0.66$$

$$\text{II. } 10y^2 - 6y - 5y + 3 = 0$$

$$2y(5y-3) - 1(5y-3) = 0$$

$$(2y-1)(5y-3) = 0$$

$$y = \frac{1}{2} \text{ & } \frac{3}{5}$$

$$y = 0.5 \text{ & } 0.60$$

x	y	Relation
0.5	0.5	$y = x$
0.5	0.60	$y > x$
0.66	0.5	$x > y$
0.66	0.6	$x > y$

So, no relation can be established

S69. Ans.(c)**Sol.**

$$\text{I. } 2x^2 + 12y + 7y + 42 = 0$$

$$2x(x+6) + 7(y+6) = 0$$

$$(2x+7)(y+6) = 0$$

$$x = -\frac{7}{2} \text{ & } -6$$

$$x = -3.5 \text{ & } -6$$

$$\text{II. } 2y^2 + 2y + 5y + 5 = 0$$

$$2y(y+1) + 5(y+1) = 0$$

$$(2y+5) + (y+1) = 0$$

$$y = -\frac{5}{2} \text{ & } -1$$

$$y = -2.5 \text{ & } -1$$

x	y	Relation
-3.5	-2.5	$y > x$
-3.5	-1	$y > x$
-6	-2.5	$y > x$
-6	-1	$y > x$

So, $x < y$

S70. Ans.(d)**Sol.**

$$\frac{780}{13} + 5 + 23 = \frac{x}{100} \times 60$$

$$60 + 5 + 23 = x \times \frac{3}{5}$$

$$x = \frac{88 \times 5}{3}$$

$$x = 146.66 \approx 147$$

S71. Ans.(d)**Sol.**

$$\frac{40}{100} \times 250 + 14 = x^2 + 56$$

$$100 + 14 = x^2 + 56$$

$$x^2 = 58$$

$$x \approx 8$$

S72. Ans.(c)**Sol.**

$$21^2 - \frac{25}{100} \times 220 - ? = 131$$

$$441 - 55 - ? = 131$$

$$? = 386 - 131$$

$$? = 255$$

S73. Ans.(c)**Sol.**

$$24^2 + 12 = ? \times (50\% \text{ of } 56)$$

$$576 + 12 = ? \times 28$$

$$21 = ?$$

Sol (74-79)

In bag A,

$$\text{Percentage of blue balls} = 100 - 62.5 = 37.5\%$$

$$(62.5 - 37.5)\% = 60$$

$$25\% = 60$$

$$240 = 100\%$$

$$\text{Red balls} = 62.5\% \text{ of } 240 = 150$$

$$\text{Blue balls} = 240 - 150 = 90$$

Similarly,

Total bags	Total balls	Red balls	Blue balls
A	240	150	90
B	600	399	201
C	470	392	141
D	380	228	152
E	750	540	210

S74. Ans.(a)

Sol. Required answer = $\frac{150 + 540}{90 + 210} \times 100 = 230\%$

S75. Ans.(b)

Sol. Required answer = $(201 + 392) - 540 = 53$

S76. Ans.(c)

Sol. Required answer = $150 + 540 : 90 = 690 : 90 = 23:3$

S77. Ans.(d)

Sol. Required answer = $\frac{399+228+540}{3} = 389$

S78. Ans.(e)

Sol. Total balls in F = 125% of 540 = 675

Blue balls in F = $\frac{1}{2} \times 150 = 75$

Red balls in F = 600

S79. Ans.(a)

Sol. Taken out balls = 20% of 240 = 48

Taken out Red balls from A = 400 - 392 = 8

Taken out blue balls from A = 48 - 8 = 40

Sol (80 - 85)

In shop A,

Total TV sold = 320

Cell phone - TV = 200

Cell phone = 200 + 320 = 520

Total items sold = 520 + 200 = 720

Similarly,

Shops	Total items	Total TV sold	Cell phone sold
A	840	320	520
B	1480	600	880
C	1760	680	1080
D	2040	760	1280
E	520	80	440

S80. Ans.(a)

Sol. Required percentage = $\frac{760 - 520}{760} \times 100 = 31.57\%$

S81. Ans.(c)

Sol. Total items sold by F = 120% of 1760 = 2112

Let TV and Cellphone sold by F be 7x and 15x

22x = 2112

96 = x

Tv old by F = 7x = 672

S82. Ans.(d)

Sol. Required answer = $(1080+440) - 840 = 680$

S83. Ans.(e)

Sol. Required ratio = 760 : 880 = 19:22

S84. Ans.(a)

Sol. Defective TV sold by D = 12.5% of 760 = 95

Defective cellphone = 280 - 95 = 185

S85. Ans.(d)

Sol. Required average = $\frac{880+1080+440}{3} = 800$

Solutions (86-90):

Let denote lab assistant in C be x.

Colleges	Professor	Lab assistant	Staffs
A	y	82 - y	82
B		x+4	
C	x+6	x	

$$x+6 + x = 82 + 24$$

$$2x + 6 = 106$$

$$50 = x$$

Also,

$$y = x+4 - 44 = 10$$

total professor in all the college is 102

$$\text{total professor in B} = 102 - y - x - 6 = 36$$

Colleges	Professor	Lab assistant	Staffs
A	10	72	82
B	36	54	90
C	56	50	106

S86. Ans.(a)

Sol. Required answer = 90

S87. Ans.(d)

Sol. Required answer = 36:72 = 1:2

S88. Ans.(a)

Sol. Total staff in D = $\frac{3}{4} \times 72 = 54$

Lab assistant in D = 50 - 20 = 30

Required answer = 54 - 30 = 24

S89. Ans.(b)

Sol. Required answer = $\frac{10}{90} \times 100 = 11.11\%$

S90. Ans.(a)

Sol. Required answer = $\frac{72+50}{2} = 61$

S91. Ans.(d)**Sol. Given Information:**The boat goes downstream a distance of X km in 2 hours

The same distance is covered upstream in 3 hours

The speed of the stream is "s" km/h

Explanation:Downstream speed = $(b + s)$ and it covers X km in 2 hours,

So, $b + s = X / 2$

Upstream speed = $(b - s)$ and it covers X km in 3 hours,

So, $b - s = X / 3$

Adding both equations:

$$2b = (X / 2) + (X / 3)$$

$$2b = 5X / 6$$

$$b = 5X / 12$$

Substitute $b = 5X / 12$ into $b + s = X / 2$:

$$(5X / 12) + s = X / 2$$

Solve for s :

$$s = X / 12$$

To find $2X$, we get:

$$2X = 24$$

S92. Ans.(c)**Sol.** Profit sharing ratio of A, B and C

$$= 6400 \times 4 + (6400 \times \frac{70}{100}) \times 8 : 7200 \times 12 : 7200 \times \frac{40}{100} \times 8$$

$$= 32 : 45 : 12$$

$$\text{Required profit share} = \frac{(32+12)}{(32+45+12)} \times 90000 \approx 44494 \text{ Rs.}$$

S93. Ans.(e)**Sol.** Let initial quantity of milk = $8y$ litersAnd initial quantity of water = xy liters

$$\text{ATQ} \frac{8y+5}{xy+30} = \frac{1}{1}$$

$$8y + 5 = xy + 30$$

$$8y - xy = 25 \text{ ---- (i)}$$

So, we can't determine the value of 'x' because it will be satisfied on both 6 and also non integer value of 'y' here

S94. Ans.(d)**Sol.** Let the breadth of the rectangular park = x metersAnd, length of rectangular park = $2x$ metersLength with pathway = $2x+8$

If area of half pathway = 352

So, for full pathway = 352×2 meters

Area of pathway = area of rectangular park with pathway – area of rectangular park

$$x \times (2x+8) - 2x \times x = 352 \times 2$$

$$x^2 + 4x - x^2 = 352$$

$$4x = 352$$

$$x = 88$$

$$\text{Length of rectangular park} = 88 \times 2 = 176 \text{ meters}$$

S95. Ans.(d)

Sol. Information Given:

$$\text{Speed of train} = 72 \text{ km/h} = 20 \text{ m/s}$$

$$\text{Speed of athlete} = 18 \text{ km/h} = 5 \text{ m/s}$$

$$\text{Time to cross athlete} = 10 \text{ seconds}$$

$$\text{Time to cross platform} = 25 \text{ seconds}$$

Explanation:

$$\text{Relative speed of the train and athlete} = 20 \text{ m/s} - 5 \text{ m/s} = 15 \text{ m/s.}$$

$$\text{Length of the train} = \text{Relative speed} \times \text{Time} = 15 \text{ m/s} \times 10 \text{ s} = 150 \text{ meters.}$$

The distance covered by the train in 25 seconds (time to cross the platform) is:

$$\text{Distance} = \text{Speed} \times \text{Time} = 20 \text{ m/s} \times 25 \text{ s} = 500 \text{ meters.}$$

The length of the platform = Total distance covered - Length of the train:

$$\text{Length of platform} = 500 \text{ meters} - 150 \text{ meters} = 350 \text{ meters.}$$

S96. Ans.(e)

Sol. Information Given:

$$\text{Selling price (SP)} = \text{Rs. } 624$$

$$\text{Loss} = 22\%$$

$$\text{Mark-up} = 30\% \text{ above the cost price}$$

$$\text{Profit} = \text{Rs. } 84$$

Explanation:

$$\text{SP} = 78\% \text{ of C.P.}$$

$$624 = 0.78 \times \text{C.P.}$$

$$\text{C.P.} = 624 / 0.78 = \text{Rs. } 800$$

The marked price is 30% more than the cost price:

$$\text{M.P.} = \text{C.P.} + 30\% \text{ of C.P.}$$

$$\text{M.P.} = 800 + 30\% \text{ of } 800$$

$$\text{M.P.} = 800 + 240 = \text{Rs. } 1040$$

$$\text{Selling Price (SP)} = \text{C.P.} + \text{Profit}$$

$$\text{SP} = 800 + 84 = \text{Rs. } 884$$

$$\text{Discount} = \text{M.P.} - \text{SP}$$

$$\text{Discount} = 1040 - 884 = \text{Rs. } 156$$

$$\text{Discount percentage} = (\text{Discount} / \text{M.P.}) \times 100$$

$$\text{Discount percentage} = (156 / 1040) \times 100 = 15\%$$

S97. Ans.(b)

Sol. Simple interest = $(P \times R \times T) / 100$

P = principle, R = rate of interest and T = Time

Also, equivalent rate of interest at rate of 10% p.a. for two years = $(10+10+\frac{10 \times 10}{100})\%$
= 21%

Interest received for A = $\frac{X \times 15 \times 2}{100} = 0.3X$

ATQ, Amount invested in scheme B = $X + 0.3X = 1.3X$ Rs.

Interest received from scheme B = $1.3X \times \frac{21}{100} = 0.273X$

$$0.3X - 0.273 = 32.4$$

$$X = 1200 \text{ Rs.}$$

S98. Ans.(d)

Sol. Given:

7 men and 15 women can complete the work in 15 days.

18 men and 20 women can complete the work in 8 days.

X men and 20 women can complete the work in 10 days.

We need to find X.

Explanation:

Let the work done by one man in one day be M and the work done by one woman in one day be W.

Total work = $(7M + 15W) \times 15 = 1$ unit of work

$$(7M + 15W) \times 15 = 1$$

$$7M + 15W = 1/15 \text{ (Equation 1)}$$

From the second condition (18 men and 20 women complete the work in 8 days):

Total work = $(18M + 20W) \times 8 = 1$ unit of work

$$\text{So, } (18M + 20W) \times 8 = 1$$

$$18M + 20W = 1/8 \text{ (Equation 2)}$$

$$7M + 15W = 1/15$$

$$18M + 20W = 1/8$$

Multiply the first equation by 8 and the second equation by 15 to eliminate fractions:

$$(7M + 15W) \times 8 = (1/15) \times 8 \rightarrow 56M + 120W = 8/15 \text{ (Equation 3)}$$

$$(18M + 20W) \times 15 = (1/8) \times 15 \rightarrow 270M + 300W = 15/8 \text{ (Equation 4)}$$

$$\text{Equation 3: } 56M + 120W = 8/15$$

$$\text{Equation 4: } 270M + 300W = 15/8$$

$$\text{Equation 5: } 280M + 600W = 40/15$$

$$\text{Equation 6: } 540M + 600W = 30/8$$

Now, subtract Equation 5 from Equation 6:

$$(540M + 600W) - (280M + 600W) = 30/8 - 40/15$$

Simplify:

$$260M = (30/8 - 40/15)$$

$$260M = 450/120 - 320/120$$

$$260M = 130/120$$

$$260M = 13/12$$

So,

$$M = (13/12) / 260 = 13 / (12 \times 260) = 13 / 3120 = 1 / 240$$

Substitute $M = 1/240$ into Equation 1:

$$7M + 15W = 1/15$$

$$7 \times (1/240) + 15W = 1/15$$

$$7/240 + 15W = 1/15$$

$$15W = 1/15 - 7/240$$

$$15W = (16/240 - 7/240) = 9/240$$

$$W = 9 / (240 \times 15) = 9 / 3600 = 1 / 400$$

$$(X \text{ men} + 20 \text{ women}) \times 10 = 1 \text{ unit of work}$$

$$(X \times M + 20 \times W) \times 10 = 1$$

$$X \times (1/240) + 20 \times (1/400) = 1/10$$

$$X/240 + 20/400 = 1/10$$

$$X/240 + 1/20 = 1/10$$

Multiply the entire equation by 240 to eliminate fractions:

$$X + 12 = 24$$

$$\text{Thus, } X = 24 - 12 = 12$$

S99. Ans.(a)

Sol. Let the four consecutive multiples of 4 be:

$$4n, 4n + 4, 4n + 8, 4n + 12$$

The average of these four numbers is given as 30.

The formula for the average of these numbers is:

$$(4n + (4n + 4) + (4n + 8) + (4n + 12)) / 4 = 30$$

Simplify the equation:

$$(16n + 24) / 4 = 30$$

$$16n + 24 = 120$$

$$16n = 96$$

$$n = 6$$

Thus, the four consecutive multiples of 4 are:

$$4n = 4 \times 6 = 24$$

$$4n + 4 = 24 + 4 = 28$$

$$4n + 8 = 24 + 8 = 32$$

$$4n + 12 = 24 + 12 = 36$$

Let the five consecutive even numbers be:

$$28, 30, 32, 34, 36$$

The highest number in the series is 36.

S100. Ans.(c)

Sol. The present age of R = $32 - 12 = 20$ years

The present age of Q = $56 - 20 = 36$ years

The present age of P = $64 - 36 = 28$ years

ATQ,

$$\frac{28 + 12}{36 - 6} = \frac{4}{X}$$

$$\frac{40}{30} = \frac{4}{X}$$

$$X = 3$$